

## Two New Species of the Anthomyiidae From Yunnan Province, China (Diptera: Anthomyiidae)

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**Abstract:** The present paper deals with two new species of the family Anthomyiidae from Yunnan Province, China, namely *Delia nigriabdominis* sp. nov. and *Chirosia fortispispatula* sp. nov. All the type specimens are deposited in Institute of Entomology, Shenyang Normal University, Shenyang.

**Key words:** Diptera; Anthomyiidae; *Delia*; *Chirosia*; New species

Anthomyiidae has been recorded 612 species in China. Now, after researching the specimens collected from Yunnan Province by Health and Anti-epidemic Station of Yunnan Province in recent years, two new species are reported as follows:

### 1 *Delia nigriabdominis* sp. nov. (Figs. 1 - 4)

♂ Length of body 5.0 mm. Eyes bare and sub-holoptic; frons about as wide as anterior ocellus; interfrontalia black, narrower than parafrontalia; with a pair of distinct *yf*, 10 pairs of inclinate *ori*, but no *ors*; parafrontaliae and parafacialiae dark brown in

ground color with gray-yellow pollinosity; parafacialia slightly wider than width of antenna; antennae black, A3 about 1.5 times as long as wide; arista short plumose, most hairs of arista equal to 1/2 width of antenna, or even longer than it; epistoma about protruding from frontal angle in profile; gena with up-curved peristomal setae in 3 rows; occiput without setulae on upper part below postocular row of setulae; genal-height about 2/11 of eye-height; haustellum with prementum blackish and pollinose; palpi dark brown.

Thorax. Ground color blackish and gray-brown in pollinosity; hairs of body long and dense, mesonotum when viewed from behind with rather distinct 5 vittae;

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Endopod of 1st male pleopod is ovate. The proximal half of the outer margin bears long plumose setae, and the distal half is armed with longer spinules. The appendix masculina of 2nd pleopod is rod-shaped, and bears many large spines in inner margin.

Remarks: The present new species closely allied to *Caridina shilinica* Liang et Cai, 2000, but differs from the latter in following features: ①rostrum is short-

er; ②carpus and chela of 1st and 2nd legs are shorter and thicker; ③carpus of 2nd leg is shorter than merus; ④ultimate segment of 3rd maxilliped is longer than antepenultimate segment; ⑤the outer-distal angle of endopod of 1st maxilliped is round; ⑥the thorns of appendix masculina are larger and fewer; ⑦the shape and structure of endopod of 1st male pleopod and appendix masculina are different.

**Key words:** Atyidae; *Caridina*; New species

mesonotum with 2-3 row of *pre acr.* and with no accessory setulae between the rows; *ph* 1+2; *dc* 2+3; *pra* longer than posterior *ntpl*; mesopleura with no distinct anterior *mpl*; notopleura without accessory setulae; *stpl* 0+2.

Wings light fuscous hyaline, veins brownish to brown, basicosta brown, costal spine absent, costa without spinular setae on ventral surface. Calypters brownish, lower one not distinctly protruded beyond the upper. Halteres brown.

Legs black except tibiae brown and tarsi dark brown; fore tibia with 5-6 *pd*, 3 *p* and 2 *pv*, mid femur with a row of complete *av* and *pv* respectively, mid tibia with 1 *av*, 3 *ad*, 3 *pd* and 2 *pv*; hind femur with a row of complete *av* and *pv* respectively, hind tibia with 4 *av*, 6-7 *ad*, 5 *pd* and 6-7 *pv*, without apical *pv*; tarsi normal; claws and pulvilli developed.

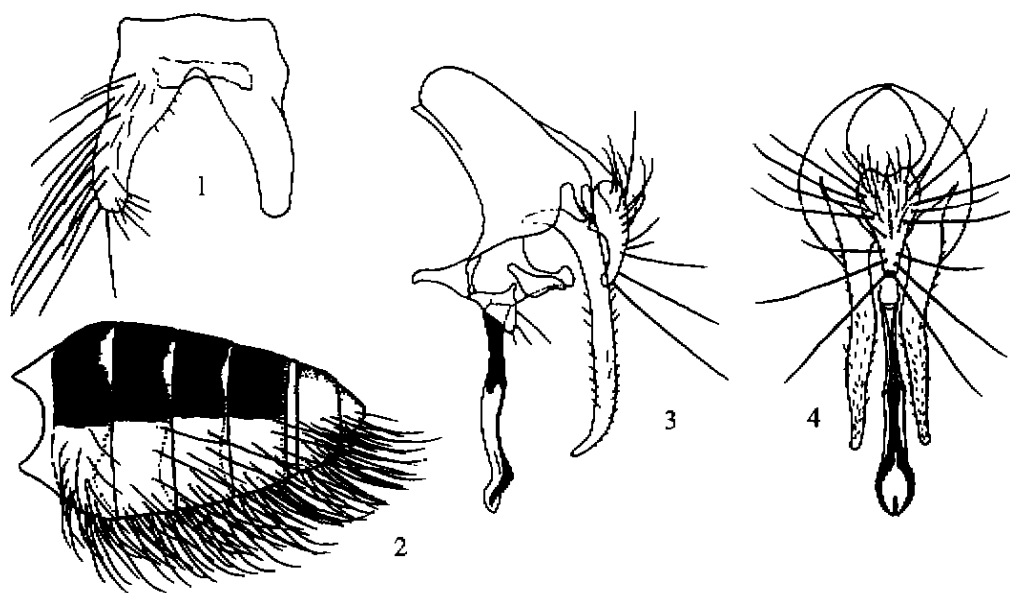
Abdomen. Charcoal black in ground color, longish ellipsoid in dorsal view, dorsoventrally compressed; tergites with a white pruinose band on poste-

rior margin, marginal bristles and setulae of body long, both sides more denser, the longest setula about 1.5 to 2.0 times the length of each tergite; 6th tergite bare; 3rd and 4th sternites without special long bristle.

♀ Unknown.

Holotype ♂, Luquan, Yunnan Province, 3 500 m, 10. IV. 1997, by LI Fu-Hua.

This new species is close to *Delia quadrilateralis* Fan et Zhong, 1982, but differs from the latter in the follows; parafrontaliae approximated, with 10 pairs of inclinate *ori*, arista short plumose, most hairs of arista equal to 1/2 width of antenna, or even longer than it; epistoma about protruding from frontal angle in profile. Mesonotum when viewed from behind with rather distinct 5 vittae; *ph* 1+2; *stpl* 0+2. Costal spine absent; calypters brownish, halteres brown. Tibiae brown, tarsi dark brown; fore tibia with 5-6 *pd*, 3 *p* and 2 *pv*; mid tibia with 1 *av*. Tergites of abdomen charcoal black in ground color. Distal part of cerci with long bristles.



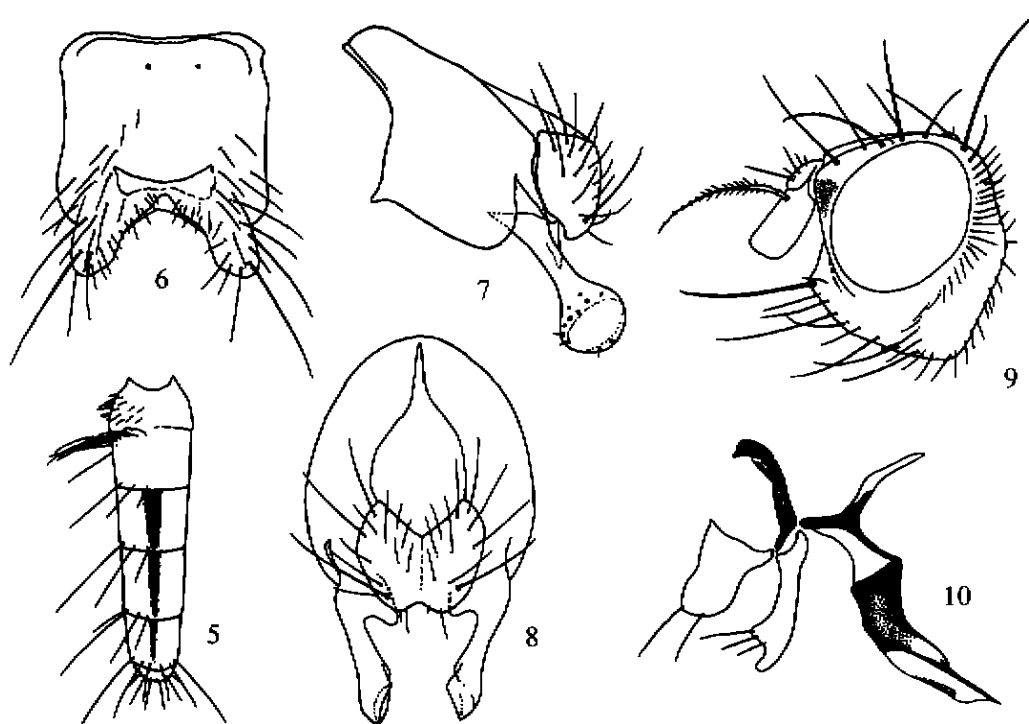
Figs. 1-4 *Delia nigriabdominis* sp. nov. (♂)

1. 5th sternite in ventral view; 2. Abdomen in dorsal view; 3. Terminalia in profile; 4. Terminalia in posterior view.

## 2 *Chirosia forcispapula* sp. nov. (Figs. 5-10)

♂ Length of body 5.0 mm. Eyes bare; frons

about equal to 0.45 times the width of head (equal to 2.0 times the length of A3); interfrontalia black, about 4 times the width of parafrontalia, with a pair of strong *if*; *ori* 2 and *ors* 3; frons, parafacialia and

Figs. 5-10 *Chiroisia forcipispatula* sp. nov. (♂)

5. Abdomen in dorsal view; 6. 5th sternite in ventral view; 7. Terminalia in profile; 8. Terminalia in posterior view; 9. Head in profile; 10. Genitalia in profile.

genae covered with pale gray pollen; upper half of parafacialia with a brownish triangular macula, parafacialia about half width of antenna; antennae black, A3 about 2.3 times as long as wide; arista short pubescent, the longest hair about 1.5 times the diameter of basal arista; epistoma behind frons at lunule; occiput with setulae on upper part; prementum covered with gray pollen, palpi black.

**Thorax.** Completely black in ground color; mesonotum without distinct vittae, with dark gray pollen, and 3-4 pairs of *pre acr* present; *dc* 2+3; *ph* 1; *pra* about 2/3 to 4/5 times the length of posterior *npl*; notopleura without accessory setulae; mesopleura without distinct anterior *mpl*; *stpl* 1+2.

**Wings** hyaline; veins brownish; basicosta yellow, costal spines developed, about longer than r-m cross vein; 3rd section of costa with 2-3 spinular setae on ventral surface, costa with a row of small spines on anterior margin. Calypters light yellowish, lower calypter band-like. Halteres yellowish.

**Legs.** Wholly black except hind femur brown;

tarsi normal; fore tibia with 1 *ad* and 1 medial *pv*; mid femur with a row of *pv* on basal 3/5, mid tibia with 1 *ad* and 2 *pd*; hind femur with 2 medial *av*, a row of *pv* on basal 2/3, hind tibia with 2-3 *av*, 4 *ad* (2 small), 3 *pd* and 1-2 short *pv*; tarsus longer than tibia; claws and pulvilli developed.

**Abdomen.** Longish club in dorsal view, ground color black, with blue gray pollen, 3rd to 5th tergites each with a median dark black marking (Fig. 5); 6th tergite bare; 3rd and 4th sternites without special long bristle.

♀ Unknown.

**Holotype** ♂, Pianma, Lushui, Yunnan Province, 2 000 m, 26. V. 1992, by LI Fu-Hua.

This new species resembles the *Chiroisia nigripes* Bezzi, 1895, but differs from the latter in having frons of male broader, about equal to half the width of head (equal to 2.0 times the length of A3); interfrontalia black, about 4 times the width of parafrontalia, *ors* 3, occiput with setulae on upper part; costal spines developed, *ph* 1; hind femur with 2 medial

av, hind tibia with 1-2 pv; abdomen slender club; 5th sternite different; apical part of surstylus circular in profile and inside of basal part with protuberance in posterior view.

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## 云南省花蝇科二新种 (双翅目: 花蝇科)

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**摘要:** 记述采自云南省花蝇科 2 新种, 即: ①分布于云南省禄劝的黑腹地种蝇 *Delia nigriabdominis* sp. nov., ②分布于云南泸水片马的匙叶蕨蝇 *Chirosia fortispispatula* sp. nov.。前者雄性尾器近似梯叶地种蝇 *Delia quadrilateralis* Fan et Zhong, 1982, 但新种雄性侧额邻接, 下眶鬃 10 对, 芒短羽状, 口前缘稍突出于额前缘; 盾片具 5 个黑条, 肩后鬃 1+2, 腹侧片鬃 0+2; 前缘刺缺如, 平衡棒和腋瓣褐色; 胫节褐色, 跗节暗褐色, 前胫后背鬃 5~6 根, 3 根后鬃和 2 根后腹鬃; 腹部各背板

呈煤黑色; 肛尾叶端半部两侧具很长的鬃毛等不同。匙叶蕨蝇近似于黑足蕨蝇 *Chirosia nigripes* Bezzi, 1895, 但新种雄性额宽, 接近头宽的一半, 为触角第 3 节长的 2 倍, 间额黑色, 为一侧额宽的 4 倍; 上眶鬃 3 对; 芒毛稍长; 后头背区具毛; 前缘刺长大; 肩后鬃 1+0; 后股中部具 2 根前腹鬃; 后胫后腹鬃 1~2; 腹部细长, 呈棒状; 第 5 腹板形状不同, 雄性侧尾叶侧面观末端成圆形, 后面观基部内侧有突起。模式标本保存于沈阳师范大学昆虫研究所。

**关键词:** 双翅目; 花蝇科; 地种蝇属; 蕨蝇属; 新种

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